ORIGINAL

BEFORE THE

Federal Communications Commission

WASHINGTON, D.C. 20554

In the Matter of	)	
	)	
Preparation for International Telecommunication Union World Radiocommunication Conferences	)	IC Docket No. 94-31

REPLY COMMENTS OF TRW INC.

TRW Inc. ("TRW"), by its attorneys and pursuant to Sections 1.415 and 1.430 of the Commission's Rules, hereby replies to initial comments filed in response to the Commission's Notice of Inquiry ("NOI") in the above-captioned docket. Despite the fact that many of those filing comments in this proceeding have been involved in other highly contentious proceedings before the Commission and in other fora, there is a remarkable level of concurrence among these parties on many issues addressed in the NOI. Although some areas of disagreement emerge, there is general agreement that: (1) the Report of the Voluntary Group of Experts ("VGE") must be very carefully scrutinized before any changes in the current ITU Radio Regulations are adopted; (2) several potential impediments to the introduction of global MSS must be removed through clarification of particular Radio Regulations; and (3) significant new allocations of spectrum must be secured for implementation of global MSS, and (4) the U.S. should ensure that there will be sufficient feeder link spectrum to implement service in the spectrum allocated for MSS.

Final Report of the Voluntary Group of Experts. There is virtually unanimous support among the commenters for a very thorough review of the VGE Report prior to WRC-95, in order to ensure that the proposed changes in the Radio Regulations merely clarify or streamline the regulations without substantively changing existing requirements or procedural protections.[1/] Because this process may ultimately require substantial debate and deliberation among all administrations, TRW concurs with the suggestion of some commenters that portions of the VGE Report may have to be deferred until WRC-97 to prevent the conference from becoming mired in lengthy consideration that could distract the body from action on items of more pressing concern, particularly the important MSS issues that must be addressed.[2/] Matters within the VGE Report critical to MSS implementation, of course, would have to be addressed at WRC-95.

Mobile-Satellite Service Allocations. Among the parties commenting, there appears to be no dissent from the view that demand for MSS spectrum far exceeds the current spectrum allocated for this service globally, and that immediate

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1/ See, e.g., Comments of Constellation Communications Inc. ("Constellation") at 2-3; Comments of COMSAT World Systems ("CWS") at 6-8; Comments of Hughes Space and Communications Company and Hughes Communications Galaxy, Inc. ("Hughes") at 4-5; TRW Comments at 2-5.

2/ See, e.g., Comments of AirTouch Communications ("AirTouch") at 3-4; Comments of American Mobile Satellite Corporation ("AMSC") at 18-19; Comments of Loral/QUALCOMM Partnership, L.P. ("LQP") at 20.

efforts to secure more spectrum for MSS use are required.[3/] There is not yet a consensus on which bands are most desirable for MSS, but several bands appear promising. In particular, both Motorola and AMSC propose that the 2 GHz allocation for MSS be revised to encompass the bands at 1990-2025 MHz (in the Earth-to-space direction) and 2165-2200 MHz (space-to-Earth), which would provide 35 MHz in each direction.[4/] In addition, these same parties report promising studies of the 1675-1710 MHz bands for MSS uplinks.[5/] Should further study indicate favorable sharing prospects for these bands -- as well as the bands made available by the NTIA -- the U.S. should pursue the global allocation of these bands to MSS at WRC-95.

In keeping with the strong expression of support for rapid implementation of MSS, all parties commenting upon the issue of the current ITU regulatory limitations in the 1610-1626.5 MHz and 2483.5-2500 MHz bands advocate similar clarifying modifications of the relevant footnotes in order to facilitate the use

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3/ See, e.g., AirTouch Comments at 5-6; AMSC Comments at 11-16; Constellation Comments at 7-8; CMC Comments at 24-31; Comments of DBS Industries, Inc. at 1; Comments of Ellipsat Corporation ("Ellipsat") at 10-11; LQP Comments at 18-20; Comments of Motorola Satellite Communications, Inc. ("Motorola") at 8-14; TRW Comments at 5.

4/ See AMSC Comments at 11-13; Motorola Comments at 9-11.

5/ See AMSC Comments at 14-15; Motorola Comments at 11-12.

of these bands for MSS.[6/] Accordingly, the U.S. position for WRC-95 should include proposals to delete footnote 733E, and adopt the clarifying interpretations, or consistent revisions, of Footnotes 731E and 753F discussed in TRW's initial comments.[7/]

MSS Feeder Links. There is also a broad expression of need to establish clearly at WRC-95 the availability of sufficient feeder link spectrum for MSS systems to become operational. The U.S. must not allow its commitment to the near-term establishment of MSS in frequencies allocated at WARC-92 to waver by failing to address this issue now.

For this reason, TRW disagrees with the assertion of GE American Communications, Inc. ("GE Americom") that the use of the Ka-band for MSS feeder links should be left off of the agenda for WRC-95.[8/] GE Americom seeks to rationalize such a delay by making reference to the now ongoing work of the 28 GHz band Negotiated Rulemaking Committee ("NRC"), suggesting that the fact that this committee has not completed its work as of the Summer of 1994 must preclude the prospect of U.S. advocacy -- in November 1995 -- of views consistent with the

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6/ See AirTouch Comments at 7-8; Constellation Comments at 4-6; Ellipsat Comments at 8-10; LQP Comments at 13-18.

7/ See TRW Comments at 5-9.

8/ See Comments of GE American Communications, Inc. at 5-6.

outcome of the negotiated rulemaking process.[9/] This contention lacks merit not only because the output of the 28 GHz NRC should be known well in advance of WRC-95, but also because the issue being addressed by the NRC is not "whether" sharing of this band between MSS fixed feeder links and fixed satellite service ("FSS") systems will be permitted, but how to accomplish sharing between FSS systems (including MSS fixed feeder links) and terrestrial fixed service systems. In order to implement an MSS allocation the U.S. was instrumental in securing, the U.S. should, at WRC-95 seek enough spectrum for these critical links to accommodate all current MSS applicants (specifically including the 19.7 to 20.2 GHz and 29.5 to 30.0 GHz bands within which TRW has long proposed to locate gateway/space station links).

In a related vein, there is also broad support for forceful U.S. advocacy of the position concerning Radio Regulation 2613 that was adopted by the MSS Above 1 GHz NRC, and has been advocated during the Fall 1993 meetings of ITU Working Group 4.[10/] In short, the U.S. should work toward a consensus interpretation of RR 2613 that requires that bi-lateral or multi-lateral coordination occur between non-GSO and GSO FSS systems in shared bands to establish what level of interference is

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9/ Id.

10/ See Ellipsat Comments at 7 n.7; LQP Comments at 11-12; Motorola Comments at 16; TRW Comments at 10-12; Comments of Teledesic Corporation at 4-8 (declining to support the view advanced by TRW, in favor of eliminating RR 2613 entirely)..

acceptable prior to system implementation, and that this level of interference will not be exceeded by a non-geostationary ("non-GSO") satellite system in operation due to failure to maintain sufficient angular separation between satellites of the two systems.[11/]

The need for this clarification is made evident by Hughes, which asserts that the "primary status of GSO services with respect to non-GSO services should be maintained."[12/] As the other comments indicate, this view has very little support in the U.S. satellite community, in large part because it is intrinsically unreasonable. Because RR 2613 applies to numerous frequency bands, acceptance of Hughes' view would substantially impair the development of non-GSO systems, technology that promises to be an important element in the advancement of the Global Information Infrastructure. In no way should GSO systems be given primacy over non-GSO systems everywhere that this regulation applies. Instead, the U.S. must establish positions for WRC-95 and future conferences that ensure that there is opportunity for both types of technology to develop fully.

CONCLUSION

TRW appreciates this opportunity to make its views known concerning these important issues, which must be comprehensively addressed by the ITU in order

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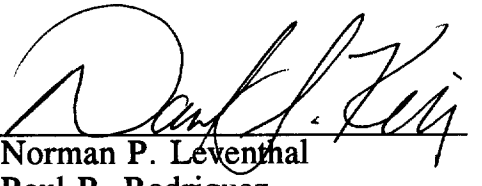
11/ See TRW Comments at 10-12.

12/ See Hughes Comments at 6-7,

to speed the successful advancement of the Global Information Infrastructure. TRW looks forward to continuing its input in preparation for WRC-95 through its active participation on the Commission's Industry Advisory Committee.

Respectfully submitted,

TRW INC.

By: 

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August 5, 1994

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CERTIFICATE OF SERVICE

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